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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,613	07/31/2001	Michael Bischof	4191/PCT	4612
21553	7590	10/31/2003	EXAMINER	
FASSE PATENT ATTORNEYS, P.A. P.O. BOX 726 HAMPDEN, ME 04444-0726			EASTHOM, KARL D	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/890,613	BISCHOF ET AL.	
	Examiner	Art Unit	
	Karl D Easthom	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 32-51 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term “Regelung” referred to in the recent arguments as meaning “closed loop control” cannot be relied upon as supporting what did not appear in the English language translation; therefore there is no support for closed loop control. (If applicant has case law to the contrary, please provide same as it is this Examiner’s understanding that incorrect/incomplete translations of otherwise nonenglish supporting patents do not support later corrections.) Further, there is no support for “said temperature sensing conductor path...to maintain said operating temperature constant throughout said gas sensor function layer”. That is, sensing temperature at one location of a heater cannot provide constant temperature throughout absent supporting other structure, such as a meandering heater that covers the surface. Further, at the top of page 9 of applicant’s specification, is stated “[t]he heated surface then comprises a minimal temperature gradient”. Thus, the temperature is not constant throughout.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 32, 40, and 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 19523301. The claimed invention is disclosed at the two figures on the last page, and indicated by applicant's remarks regarding same in his specification, with the gas sensor at the tip end having heater H, two temperature sensing paths adjacent M11, M12 with contact sections DML (meeting claims 40, 45-47), the heater having at least 6 different heating sections because there are at least six different branches that vary as distance from the tip end, such sections "compensate" where the substrate has different heat dissipations, and the temperature is "constant" as a matter of degree. That is applicant shows that there is variation in his invention, and that of the prior art, so that the term "constant" is a matter of degree. Further, note that a heater section can be defined as any finite length of said electrical heater, and one can define any section as a different heater section having a different length than the one adjacent to said section even if each "section" is on a straight line path congruent with another straight line path and all on a straight path, since the claim does not specify any structural means such as a meander etc., to otherwise define a heater section. That is, for example, a highway has many different sections, all adjacent and contiguous. Even without this broader interpretation, there are at least the six different sections disclosed in DE '301 as the three different straight line paths having different lengths at least for one as compared to the other two.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 32-33, 39-47, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19523301 in view of Kitahara '943. DE '301 discloses the claimed invention as noted above, except the meander sections. Here, it is assumed in the alternative that some type of meander may be required to meet the claim of claim 32. (It is not clear from the document if the gas sensor layer is disclosed absent a translation; however, same is deemed an obvious means such as 46, 47 for controlling fuel mixture as disclosed in Kitahara – see the abstract.) The meander layer as claimed 11 at Fig. 4 of Kitahara is employed to control the gas fuel mixture so that it would have been obvious to form such a meander layer to more uniformly provide heat as is well known in the arts and as admitted at pages 3-5 in applicant's specification. Fig. 4 of Kitahara shows a variation in amplitudes depending on spacing, that is adjacent sections have different heights depending on where they are – and diminishing as claimed. For claims 42-43, some of the amplitudes diminish. For claims 39-41, 45-47 and 50, replacing the straight heater of DE '301 with the meander of Kitahara for reasons noted would result in the claimed limitations.

7. Claims 32, 35-37, and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19523301 in view of Kojima et al. '591. DE '301 discloses the claimed invention as noted above, except the varying widths. Fig. 3 and the abstract of Kojima disclose such an arrangement for the purpose of forming a uniform heating arrangement which would have been obvious for that reason. (The remarks noted above regarding claim 32 apply here also in the alternative where the gas sensor layer 15 16 is

disclosed in Kojima as a known means to sense and control gas – meeting claim 44.)

For claims 36-37, see Fig. 5 of Kojima, obvious for the same reasons.

8. Claim 34 is interpreted such that each amplitude diminishes and that is not suggested nor disclosed. Similar remarks apply to claim 38. Claims 48-49 and 51 are not suggested or disclosed due to the location of the contact points as spaced along said intermediate heater portion in combination with the meander paths. These claims would be allowable if remarks or amendments overcome the 112 1st rejections noted above, and the limitations of the base claim where incorporated into independent claims to include all limitations.

9. The arguments submitted 9/19/03 are moot in view of the new rejections above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is 703 308-3306. The examiner can normally be reached on M-Th, 5:30AM-4:00PM. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308-7722 for regular communications and 703 308-7722 for After Final communications.



Karl D Easthom
Primary Examiner
Art Unit 2832

KDE
September 11, 2003